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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/801,428

03/07/2001

Michael D. Perry

69975

7087

22242

7590

10/08/2002

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CHICAGO, IL 60603-3406

EXAMINER

NGUYEN, JOSEPH H

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,428

Applicant(s)

PERRY ET AL.

Examiner

Joseph Nguyen

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-13 and 15-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election of claims 1, 3-13, 15-31 in Paper No. 8 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Therefore, claims 1, 3-13, 15-31 are hereby prosecuted whereas claims 2 and 14 are withdrawn from consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1, 3-10, 23-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Scaggs.

Regarding claim 1, Scaggs discloses on figure 1A a laser device comprising a gain medium 4 in the shape of a polyhedron in which a beam 30 enters the gain medium through one face of the polyhedron; wherein the beam is reflected internally at one or more surfaces with each reflection occurring in such a manner that the beam

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propagates within approximately the plane of incidence; and wherein the beam enters and exits the gain medium at different locations.

Regarding claim 3, Scaggs discloses on figure 1A the different locations are on different surfaces of the polyhedron.

Regarding claim 4, Scaggs discloses on figure 1A optical pump radiation enters the gain medium through the one or more surfaces from which the beam will be reflected.

Regarding claim 5, Scaggs discloses on figure 1A optical pump radiation enters the gain medium through the one or more surfaces from which the beam will not be reflected.

Regarding claim 6, Scaggs discloses on figure 1A the optical pump radiation enters the gain medium through one or more surfaces of the polyhedron, which are approximately parallel to the plane of incidence.

Regarding claim 7, Scaggs discloses on figure 1A the optical pump radiation enters the gain medium through one or more surfaces of the polyhedron, which are approximately perpendicular to the plane of incidence.

Regarding claim 8, Scaggs discloses on figure 1A heat sinks coupled to external surfaces of the gain medium (col. 5, lines 23-24).

Regarding claim 9, Scaggs discloses on figure 1A the flow of heat from the gain material is generally within a plane transverse to the plane of incidence.

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Regarding claim 10, Scaggs discloses on figure 1A at least one of the one or more surfaces is oriented at approximately 45 degrees with respect to the path of the beam.

Regarding claim 23, Scaggs discloses on figure 1A a laser device comprising a gain medium 4 in the shape of a polyhedron in which a beam enters the gain medium through one face of the polyhedron; wherein the beam is reflected internally at one or more surfaces with each reflection occurring in such a manner that the beam propagates within approximately the original plane of incidence; and wherein at least one of the one or more surfaces are oriented at about 45 degrees with respect to the path of the beam.

Regarding claim 24, Scaggs discloses on figure 1A the beam enters and exits the gain medium at different locations wherein the different locations are on one surface of the polyhedron.

Regarding claim 25, Scaggs discloses on figure 1A the beam enters and exits the gain medium at different locations wherein the different locations are on different surfaces of the polyhedron.

Regarding claim 26, Scaggs discloses on figure 1A the optical pump radiation enters the gain medium through one or more surfaces of the polyhedron, which are approximately parallel to the plane of incidence.

Regarding claim 27, Scaggs discloses on figure 1A the optical pump radiation enters the gain medium through one or more surfaces of the polyhedron, which are approximately perpendicular to the plane of incidence.

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Regarding claim 28, Scaggs discloses on figure 1A optical pump radiation enters the gain medium through one or more surfaces from which the beam will not be reflected.

Regarding claim 29, Scaggs discloses on figure 1A optical pump radiation enters the gain medium through one or more surfaces from which the beam will be reflected.

Regarding claim 30, Scaggs discloses on figure 1A heat sinks coupled to external surfaces of the gain medium.

Regarding claim 31, Scaggs discloses on figure 1A the flow of heat from the gain material is generally within a plane transverse to the plane of incidence.

Claims 11-13,15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ziolek et al.

Regarding claim 11, Ziolek et al discloses on figure 1 a laser device comprising a gain medium in the shape of a polyhedron in which a beam enters the gain medium through one face of the polyhedron; wherein the beam is reflected internally at one or more surfaces with each reflection occurring in such a manner that the beam propagates within approximately the original plane of incidence; and wherein the polyhedron contains an internal core section in which there is no gain material.

Regarding claims 12-13, 15-22, Ziolek et al discloses on figure 1 all the structures set forth in the claimed invention.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6384920 B1 to Goltsoy discloses a laser system.

US Patent 5761233 to Bruesselbach et al discloses a laser device.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN
September 26, 2002



EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800